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EDUCATION

Ph.D. in Civil and Environmental Engineering, Duke University

M.S. in Computer Science, University of Virginia

B.S. in Physics, Virginia Tech

PROFESSIONAL EXPERIENCE

2012–present:	Research Scientist, Climate Physics Group, JPL
2010 – 2011:	National Science Foundation International Research Fellow
	Biospheric Theory and Modelling Group
	Max Planck Institute for Biogeochemistry, Jena, Germany
2008-2010:	Postdoctoral Research Fellow
	Hydrosystems Laboratory
	Dept. of Civil and Environmental Engineering
	University of Illinois, Champaign-Urbana
1999-2000:	Scientific Programmer
	National Oceanographic and Atmospheric Administration
	Synoptic Scales Techniques Branch
1996-1998:	Peace Corps Volunteer
	Mauritania, West Africa

HONORS AND AWARDS

NSF International Research Fellowship (2010-2011)

Earth Institute Postdoctoral Fellowship Award, Columbia University (declined)

Professor Senol Utku Annual Award, Dept. of Civil and Env. Eng., Duke University (2007)

Outstanding Student Paper Award, Biogeosciences Section of the AGU (2004)

NASA Earth System Science Fellowship (2003-2006)

Eagle Scout

PUBLICATIONS

Mallick, K., E. Boegh, I. Trebs, J.G. Alfieri, W.P. Kustas, J.H. Prueger, D. Niyogi, N. Das, D.T. Drewry, L. Hoffmann, A.J. Jarvis (2015) Reintroducing Radiometric Surface Temperature into the Penman-Monteith Formulation. *Water Resources Research* 10.1002/2014WR016106.

Drewry, D.T., P. Kumar, and S. P. Long (2014) Simultaneous Improvement in Productivity, Water Use and Albedo Through Crop Structural Modification. *Global Change Biology* DOI: 10.1111/gcb.12567.

Mallick, K., A. Jarvis, E. Boegh, J.B. Fisher, D.T. Drewry, K.P. Tu,, S.J. Hook, G. Hulley, J. Ardo, J. Beringer, A. Arain, and D. Niyogi (2014) A Surface Temperature Initiated Closure (STIC) for Surface Energy Balance Fluxes. *Remote Sensing of Environment* 141, 243-261.

Quijano, J.C., P. Kumar, D.T. Drewry (2013) Passive Regulation of Soil Biogeochemical Cycling by Root Water Transport. *Water Resources Research* 49(6), 3729-3746.

R. Pavlick, D.T. Drewry, K. Bohn, B. Reu, and A. Kleidon (2012) The Jena Diversity-Dynamic Global Vegetation Model (JeDi-DGVM): a Diverse Approach to Representing Terrestrial Biogeography and Biogeochemistry Based on Plant Functional Trade-offs. *Biogeosciences*, 9, 4627-4726.

Le, P.V.V., P. Kumar, D.T. Drewry, and J.C. Quijano. (2012) A Graphical User Interface for Numerical Modeling of Acclimation Responses of Vegetation to Climate Change. *Computers & Geosciences*, 49, 91-101.

Quijano, J.C., P. Kumar, D.T. Drewry, A. Goldstein, and L. Misson (2012) Competitive and Mutualistic Dependencies in Multispecies Vegetation Dynamics Enabled by Hydraulic Redistribution. *Water Resources Research*, 48, W05518, doi:10.1029/2011WR011416.

Le, P.V.V., P. Kumar and D.T. Drewry. (2011) Implications for the Hydrologic Cycle Under Climate Change Due to the Expansion of Bioenergy Crops in the Midwestern United States. *Proceedings of the National Academy of Sciences*, 1107177108v1-6.

Drewry, D.T., P. Kumar, S.P. Long, C. Bernacchi, X. Liang and M. Sivapalan (2010) Ecohydrological Responses of Dense Canopies to Environmental Variability, Part 1: Interplay Between Vertical Structure and Photosynthetic Pathway. *Journal of Geophysical Research – Biogeosciences*, 115, G04022, doi:10.1029/2010JG001340.

Drewry, D.T., P. Kumar, S.P. Long, C. Bernacchi, X. Liang and M. Sivapalan (2010) Ecohydrological Responses of Dense Canopies to Environmental Variability, Part 2: Role of Acclimation Under Elevated CO_2. *Journal of Geophysical Research – Biogeosciences*, 115, G04023, doi:10.1029/2010JG001341.

Drewry, D.T., and J.D. Albertson (2006) Diagnosing Model Error in Canopy-Atmosphere Exchange Using Empirical Orthogonal Function Analysis. *Water Resources Research*, 42, W06421, doi:10.1029/2005WR004496.

Bohrer, G., H. Mourad, T.A. Laursen, D.T. Drewry, R. Avissar, D. Poggi, R. Oren, and G.G. Katul (2005) Finite Element Tree Crown Hydrodynamics Model (FETCH) Using Porous Media Flow Within Branching Elements: A New Representation of Tree Hydrodynamics. *Water Resources Research*, 41, W11404, doi:10.1029/2005WR004181.

Drewry, D.T., P.F. Reynolds, and W.R. Emmanuel (2002) An Optimization-Based Multi-Resolution Simulation Methodology. *Proceedings of the ACM/IEEE Winter Simulation Conference*, p. 467-475.

TECHNICAL REPORTS

Drewry, D.T., P.F. Reynolds, W.R. Emanuel (2002) Optimization as a Tool for Consistency Maintenance in Multi-Resolution Simulation. University of Virginia, Department of Computer Science, Technical Report.

Drewry, D.T., L. Gu, A.B. Hocking, K.D. Kang, J.L. Pfaltz, R.C. Schutt III, C.M. Taylor (2002) Current State of Data Mining. University of Virginia, Department of Computer Science, Technical Report.

INVITED PRESENTATIONS

Drewry, D.T. Remote Sensing of Vegetation Ecophysiological Function for Improved Hydrologic Prediction, *The American Geophysical Union Fall Meeting*, San Francisco, California, 2014.

Drewry, D.T. The Role of Vegetation Acclimation in Eco-Hydrologic Response. *The American University, Dept. of Environmental Science*, Washington, DC, April 2011.

Drewry, D.T. The Role of Vegetation Acclimation in Eco-Hydrologic Response. *SUNY-Environmental Science and Forestry*, Syracuse, New York, March, 2011.

Drewry, D.T. The Role of Vegetation Acclimation in Eco-Hydrologic Response. *The Ohio State University, Department of Civil and Environmental Engineering and Geodetic Science*, Columbus, Ohio, February 2011.

Drewry, D.T. The Role of Vegetation Acclimation in Eco-Hydrologic Response. *The University of Iowa, Department of Geography*, Iowa City, IA, January, 2011.

Drewry, D.T. The Role of Vegetation Acclimation in Eco-Hydrologic Response. *Jet Propulsion Laboratory*, Pasadena, California, December 2010.

Drewry, D.T., P. Kumar, M. Sivapalan, X. Liang, C. Bernacchi, and S.P. Long, The Role of Vegetation Acclimation in Eco-Hydrologic Response. *Max Planck Institute for Biogeochemistry*, Jena, Germany, May 2010.

Drewry, D.T., P. Kumar, M. Sivapalan, X. Liang, C. Bernacchi, and S.P. Long, The Role of Vegetation Acclimation in Eco-Hydrologic Response. *Department of Civil and Environmental Engineering, Hydrosystems Laboratory, University of Illinois*, Urbana, Illinois, USA, November, 2009.

Drewry, D.T., P. Kumar, M. Sivapalan, S.P. Long, X. Liang, and C. Bernacchi, Coupling Sub-Surface Hydrological and Biogeochemical Interactions with Above-Ground Canopy Functioning. *Department of Atmospheric Sciences, University of Illinois*, Urbana, Illinois, USA, October, 2008.

Drewry, D.T., P. Kumar, S.P. Long, M. Sivapalan, and X. Liang, Toward Coupled Canopy, Water and Nitrogen Dynamics: Impacts of Root Moisture Uptake and Hydraulic Redistribution. *Max Planck Institute for Biogeochemistry*, Jena, Germany, April, 2008.

Drewry, D.T., and J.D. Albertson, Constraining Land-Atmosphere Exchange Across Scales. *Department of Civil and Environmental Engineering, Hydrosystems Laboratory, University of Illinois*, Urbana, Illinois, USA, February, 2007.